Decimals

Knowledge Organiser

Key Vocabulary

- tenths
- hundredths
- decimal tenths
- decimal hundredths
- decimal equivalents
- part-whole model
- rounding
- decimal point
- place value

Tenths and Hundredths

Tenths

$\frac{0}{10}$ $\frac{1}{10}$ $\frac{2}{10}$ $\frac{3}{10}$ $\frac{4}{10}$ $\frac{5}{10}$ $\frac{6}{10}$ $\frac{7}{10}$ $\frac{8}{10}$ $\frac{9}{10}$ $\frac{10}{10}$

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1

Hundredths

$\frac{0}{10}$ $\frac{1}{100}$ $\frac{2}{100}$ $\frac{3}{100}$ $\frac{4}{100}$ $\frac{5}{100}$ $\frac{6}{100}$ $\frac{7}{100}$ $\frac{8}{100}$ $\frac{9}{100}$ $\frac{1}{10}$

0 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1

Fraction and Decimal Equivalents

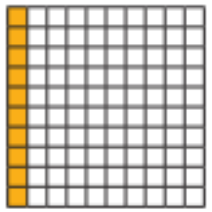
$= \frac{1}{2} = 0.5$

$= \frac{1}{4} = 0.25$

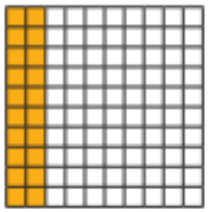
$= \frac{3}{4} = 0.75$

$= \frac{1}{10} = 0.1$

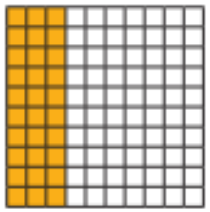
Tenth and Hundredth Decimal Equivalents



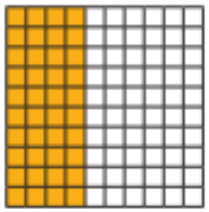
$\frac{1}{10} = \frac{10}{100} = 0.1$



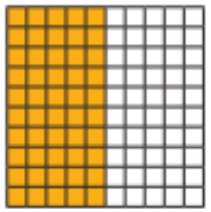
$\frac{2}{10} = \frac{20}{100} = 0.2$



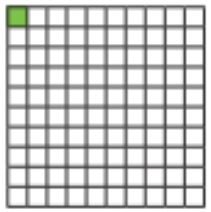
$\frac{3}{10} = \frac{30}{100} = 0.3$



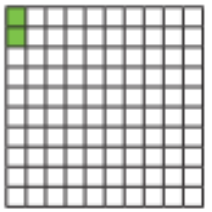
$\frac{4}{10} = \frac{40}{100} = 0.4$



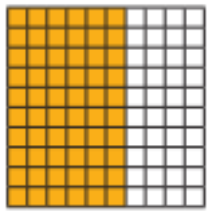
$\frac{5}{10} = \frac{50}{100} = 0.5$



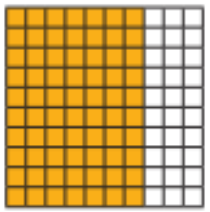
$\frac{1}{100} = 0.01$



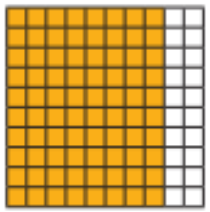
$\frac{2}{100} = 0.02$



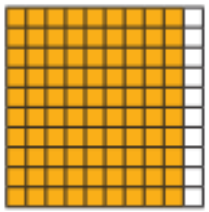
$\frac{6}{10} = \frac{60}{100} = 0.6$



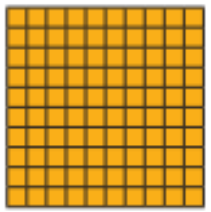
$\frac{7}{10} = \frac{70}{100} = 0.7$



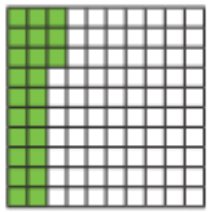
$\frac{8}{10} = \frac{80}{100} = 0.8$



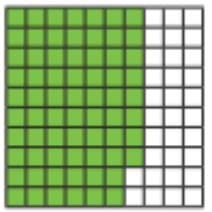
$\frac{9}{10} = \frac{90}{100} = 0.9$



$\frac{10}{10} = \frac{100}{100} = 1$



$\frac{23}{100} = 0.23$



$\frac{68}{100} = 0.68$

Decimals

Knowledge Organiser

Dividing by 10

Tens	Ones
8	5

÷ 10

÷ 10

Tens	Ones	Tenths
	8 •	5

÷ 10

Dividing by 100

Tens	Ones
8	5

÷ 100

÷ 100

Tens	Ones	Tenths	Hundredths
	0 •	8	5

÷ 100

Rounding Decimals

If the tenths digit is **1, 2, 3 or 4,** we round **down** to the nearest whole number.

If the tenths digit is **5, 6, 7, 8 or 9,** we round **up** to the nearest whole number.

Make a Whole

Partitioning Tenths and Hundredths

Comparing Numbers with Two Decimal Places